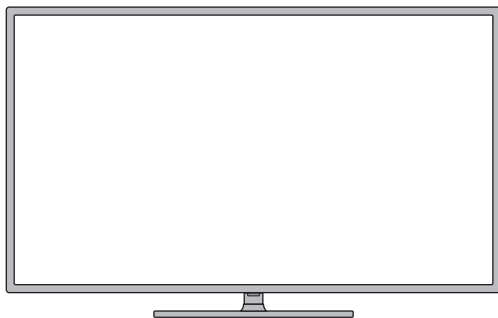


SHARP®

LC42LE771EN / LC42LE772EN
LC42LE771K / LC50LE771EN
LC50LE772EN / LC50LE771K

LCD COLOUR TELEVISION
LCD-FARB-TV
TÉLÉVISEUR LCD COULEUR
TELEVISIONE A COLORI LCD
TELEVISOR LCD A COLOR
TELEVISÃO LCD A CORES
LCD RENKLI TELEVIZYON
LCD FÄRG-TV
LCD FARGE-TV
LCD FARVE-TV
LCDVÄRI-TV
LCD KLEURENTELEVISIE
ΧΕΙΡΟΚΙΝΗΤΗ ΛΕΙΤΟΥΡΓΙΑ
TELEVISOR LCD COLOR
BAREVNI LCD TELEVIZOR
LCD SZÍNES TELEVÍZIÓ
LCD COLOUR TELEVISION
LCD TELEVISOR U BOJI
BARVNI LCD TELEVIZOR
LCD COLOUR TELEVISION
LCD TELEVÍZOR U BOJI
LCD ЦВЕТНЫЕ ТЕЛЕВИЗОРЫ
ЦВЕТЕН LCD ТЕЛЕВИЗОР
КОЛЪОРОВИЙ РК-ТЕЛЕВИЗОР
КАЛЯРОВЫ ВК-ТЭЛЕВИЗАР
SPALVOTAS LCD TELEVIZORIAUS
LCD KRĀSU TELEVIZORS
LCD VÄRVITELEVIISOR
LCD מודרן צבעונית עם מסך



OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
MANUALE DI FUNZIONAMENTO
MANUAL DE INSTRUCCIONES
MANUAL DE INSTRUÇÕES
KULLANIM KILAVUZU
BRUKSANVISNING
BRUKERHÅNDBOK
BRUGSANVISNING
KÄYTTÖOHJE
GEBRUIKSAANWIJZING
ΧΕΙΡΟΚΙΝΗΤΗ ΛΕΙΤΟΥΡΓΙΑ
MANUAL DE UTILIZARE
NÁVOD K POUŽITÍ
HASZNÁLATI ÚTMUTATÓ
OPERATION MANUAL
KORISNIČKI PRIRUČNIK
NAVODILA ZA UPORABO
OPERATION MANUAL
PRIRUČNIK O RADU
ИНСТРУКЦИЯ ПО ЭКСПЛУАТАЦИИ
РЪКОВОДСТВО ЗА ЕКСПЛОАТАЦИЯ
ПОСІБНИК З КОРИСТУВАННЯ
ІНСТРУКЦІЯ ПІА ЕКСПЛУАТАЦІЇ
NAUDOTOJO VADOVAS
LIETOŠANAS INSTRUKCIJA
KASUTUSJUHEND
מודריך הפעלה





ENGLISH
FRANÇAIS
ITALIANO
ESPAÑOL
PORTUGUÊS
TÜRKÇE
SVENSKA
NORSK
DANSK
SUOMI
NEDERLANDS
ΕΛΛΗΝΙΚΗ
ROMÂNĂ
ČESKÝ
MAGYAR
PÓLSKI
HRVATSKI
SLOVENŠČINA
SLOVENČINA
SRPSKI
РУССКИЙ
БЪЛГАРСКИ
УКРАЊНСЬКА
БЕЛОРУСЬКА
LITUVŲ
LATVIEŠU
EESTI
עברית

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SPECIAL NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 5A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked  or  and of the same rating as above, which is also indicated on the pin face of the plug, must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type.

DANGER:

The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be inserted elsewhere into a 5A socket outlet, as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

IMPORTANT:

The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black.
- The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three pin plug.

Before replacing the plug cover make sure that:

- If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
- The cord grip is clamped over the sheath of the mains lead, and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

TV - Features

- Remote controlled colour LED TV.
- 3D Viewing: This product supports the viewing of 3D content from devices such as a High Definition Satellite Receiver or Blu-ray Player via HDMI, PC, YPBPR, USB inputs or via an available broadcast.
- Fully integrated digital/cable TV (DVB-T-T2/C-S-S2).
HD DVB-T/C/S2(MPEG4) :
LC-42LE772EN / LC-50LE772EN
HD DVB-T2/CABLE(MPEG4) :
LC-42LE771EN / LC-50LE771EN
HD DVB-T2/CABLE(MPEG4):
LC-42LE771K / LC-50LE771K
- DVB-T2, DVB-S/S2 compliance and support is depending on the model
- HDMI connectors for digital video and audio. This connection is also designed to accept high definition signals.
- USB input.
- Programme recording.
- Programme timeshifting.
- 1000 programmes.
- OSD menu system.
- Scart socket for external devices (such as video, video games, audio set, etc.).
- Stereo sound system.
- Teletext, fastext, TOP text.
- Headphone connection.
- Automatic programming system.
- Forward or backward manual tuning.
- Automatic power down after up to eight hours.
- Sleep timer.
- Child lock.
- Automatic sound mute when no transmission.
- NTSC playback.
- AVL (Automatic Volume Limiting).
- PLL (Frequency Search).
- PC input.
- Plug&Play for Windows 98, ME, 2000, XP, Vista, Windows 7.
- Game Mode.
- Picture off function.
- Ethernet (LAN) for Internet connectivity and service.
- 802.11n built in WIFI Support
- DLNA (DMP, DMR)
- HBBTV (This feature is not available for UK models)
- Miracast.

The illustrations and the OSD in this operation manual are for explanation purposes and may vary slightly from the actual operations.

- The examples used throughout this manual are based on the **LC-42LE762E** model.

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read **Important safety precautions** carefully before using this product.

This device is intended to receive and display TV programs. The different connection options make an additional expansion of the reception and display sources possible (receiver, DVD player, DVD recorder, VCR, PC etc.). This device is only suitable for the operation in dry interiors. This appliance is intended solely for private domestic use and may not be used for industrial and commercial purposes. We exclude liability in principle, if the device is not used as intended, or unauthorized modifications have been made. To operate your LCD TV in extreme ambient conditions may cause the damage of the device.

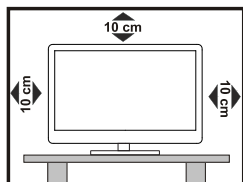
Important safety precautions

- Use a soft damp cloth to gently wipe the panel when it is dirty. To protect the panel, do not use a chemical cloth to clean it. Chemicals may cause damage or cracks in the cabinet of the TV.
- Water and moisture—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.
- Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock.
- To prevent any fault and unsafe situations, please do not place any objects on top of the set.
- If any solid object or liquid falls into the cabinet, unplug the TV and have it checked by qualified personnel before operating it any further.
- Stand—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.
- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.



- **Ventilation**—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.

- **Use this device in moderate climates.** For ventilation, leave a free space of at least 10 cm all around the set. To prevent any fault and unsafe situations, please do not place any objects on top of the set.



- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or impact applied. If the LCD panel is broken, be careful not to be injured by broken glass.
- **Heat sources**—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).
- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.
- To prevent fire or shock hazard, do not place the AC cord under the TV set or other heavy items.
- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- There is power consumption always if main plug is connected.
- ⚠ **Servicing**—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified person to perform servicing.

Precautions when transporting the TV

When transporting the TV, never carry it by holding onto the speakers. Be sure to always carry the TV by two people holding it with two hands—one hand on each side of the TV.

WARNING

To prevent the spread of fire, keep candles or other open flames away from this product at all times.



Power Source

The TV set should be operated only from a 220-240V AC, 50Hz outlet. Ensure that you select the correct voltage setting for your convenience.

Power Cord

Do not place the set, a piece of furniture, etc. on the power cord (mains lead) or pinch the cord.

Handle the power cord by the plug. Do not unplug the appliance by pulling from the power cord and never touch the power cord with wet hands as this could cause a short circuit or electric shock. Never make a knot in the cord or tie it with other cords. The power cords should be placed in such a way that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electric shock. When it is damaged and needs to be replaced, it should be done by qualified personnel.

Moisture and Water

Do not use this device in a humid and damp place (avoid the bathroom, the sink in the kitchen, and near the washing machine). Do not expose this device to rain or water, as this may be dangerous and do not place objects filled with liquids, such as flower vases, on top. Avoid from dripping or splashing. If any solid object or liquid falls into the cabinet, unplug the TV and have it checked by qualified personnel before operating it any further.

Cleaning

Before cleaning, unplug the TV set from the wall outlet. Do not use liquid or aerosol cleaners. Use soft and dry cloth.

Heat and Flames

The set should not be placed near to open flames and sources of intense heat such as an electric heater. Ensure that no open flame sources, such as lighted candles, are placed on top of the TV. Batteries should not be exposed to excessive heat such as sunshine, fire or the like.

Caring for the cabinet

- Use a soft cloth (cotton, flannel, etc.) and gently wipe the surface of the cabinet.
- Using a chemical cloth (wet/dry sheet type cloth, etc.) may deform the components of the main unit cabinet or cause cracking.
- Wiping with a hard cloth or using strong force may scratch the surface of the cabinet.

- If the cabinet is very dirty, wipe with a soft cloth (cotton, flannel, etc.) soaked in neutral detergent diluted with water and thoroughly wrung out, and then wipe with a soft dry cloth.
- Avoid using benzene, thinner, and other solvents, as these may deform the cabinet and cause the paint to peel off.
- Do not apply insecticides or other volatile liquids. Also, do not allow the cabinet to remain in contact with rubber or vinyl products for a long period of time. Plasticizers inside the plastic may cause the cabinet to deform and cause the paint to peel off.

Caring for the front panel

- Turn off the main power and unplug the AC cord from the wall outlet before handling.
- Gently wipe the surface of the front panel with a soft cloth (cotton, flannel, etc.). To protect the front panel, do not use a dirty cloth, liquid cleaners, or a chemical cloth (wet/dry sheet type cloth, etc.). This may damage the surface of the front panel.
- Wiping with a hard cloth or using strong force may scratch the surface of the front panel.
- Use a soft damp cloth to gently wipe the front panel when it is really dirty (It may scratch the surface of the front panel when wiped strongly).
- If the front panel is dusty, use an anti-static brush, which is commercially available, to clean it.

Lightning

In case of storm and lightning or when going on holiday, disconnect the power cord from the wall outlet.

Replacement Parts

When replacement parts are required, make sure that the service technician has used replacement parts, which are specified by the manufacturer or have the same specifications as the original one. Unauthorized substitutions may result in fire, electrical shock or other hazards.

Servicing

Please refer all servicing to qualified personnel. Do not remove the cover yourself as this may result in an electric shock.

Waste Disposal

- Packaging and packaging aids are recyclable and should principally be recycled. Packaging materials, such as a foil bag should be kept away from children
- Batteries, including those which are heavy metal free, should not be disposed of with household waste. Please dispose of used batteries in an environmentally friendly manner. Find out about the legal regulations which apply in your area.

- Do not try to recharge batteries, there is a danger of explosion. Replace batteries only with the same or equivalent type.
- Batteries should not be exposed to excessive heat such as sunshine, fire or the like.

This symbol on the product or on its packaging means that your electrical and electronic device should be disposed at the end of its service life separately from your household wastes. There are separate collection systems for recycling in the EU. For more information, please contact the local authority or the dealer where you purchased the product.



Disconnecting the Device

The mains plug is used to disconnect the TV set from the mains and therefore it must remain readily operable.

Headphone Volume

Excessive sound pressure from earphones and headphones can cause hearing loss.

Installation

To prevent injury, this device must be securely attached to the wall in accordance with the installation instructions when mounted to the wall (if the option is available).

LCD Screen

The LCD panel is a very high technology product with about a million thin fi lm transistors, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fi xed blue, green or red point. Please note that this does not affect the performance of your product.

Warning

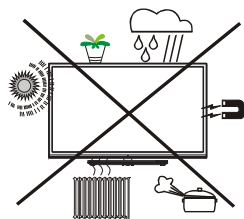
Do not leave your TV in standby or operating mode when you leave your house.

Connection to a Television Distribution System (Cable TV etc.) from Tuner

Device connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing-and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard.

Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11).

Note: The HDMI connection between PC and TV may cause radio interference in which case it is recommended to use VGA(DSUB-15) connection.



The Standby Off/On button doesn't separate this device completely from mains. Moreover the device consumes power in the standby operation. In order to separate the device completely from mains, the mains plug has to be pulled from the mains socket. Because of that the device should be set up in a way, that an unobstructed access to mains socket is guaranteed, so that in case of emergency the mains plug can be pulled immediately. To exclude the danger of fire, the power cord should principally be separated from the mains socket prior to a longer period of non-usage, i.e. during vacations.

- The terms HDMI and High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- The "HD TV 1080P" Logo is a trademark of EICTA.
- The DVB logo is the registered trademark of the Digital Video Broadcasting—DVB—project.

Electrical device not in the hands of children

Never let children use any electrical device unsupervised. Children cannot always recognise possible dangers. Batteries / accumulators can be life threatening when swallowed. Store batteries out of the reach of small children. In case of swallowing a battery medical aid has to be sought immediately. Also keep the packaging foils away from children as there is danger of suffocation.

Environmental Information

This television is designed to consume less energy to help save the environment. To reduce energy consumption, you should take the following steps:

You can use **Power Save Mode** setting, located in the **Picture** menu. If you set **Power Save Mode** as **Eco**, the TV will switch to energy-saving mode and luminance level of TV set will be decreased to optimum level. Note that some picture settings will be unavailable to be changed when the TV is in **Power Save Mode**.

When you press the right button on the remote while **Power Save Mode** is set to "Eco", "Screen will be off in 15 seconds." message will be displayed on the screen. If the **Power Save Mode** option is set to "Disabled" press the left button. Select **PROCEED** and press **OK** to continue. The screen will turn off immediately. If you do not press any buttons the screen will turn off after 15 seconds.

If you disable **Power Save Mode**, the picture mode will be automatically set to **Dynamic** except the **Mode** is set to **Game** or **Sports**.

When the TV is not in use, please switch off or disconnect the TV from the mains plug. This will also reduce energy consumption.

Disconnect power when going away for longer time.

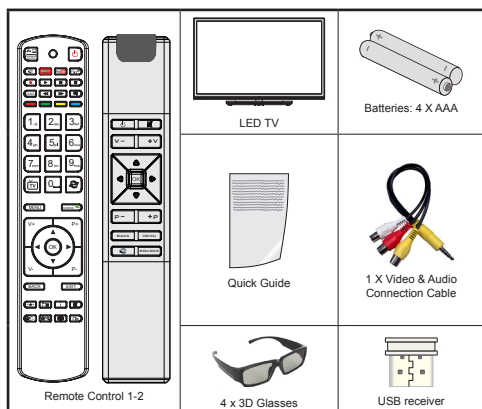
It is highly recommended to activate **Power Save Mode** setting to reduce your annual power consumption. And also it is recommended to disconnect the TV from the mains plug to save energy more when you do not use.

Please help us to save environment by following these steps.

Repair Information

Please refer all servicing to qualified personnel. Only qualified personnel must repair the TV. Please contact your local dealer, where you have purchased this TV for further information.

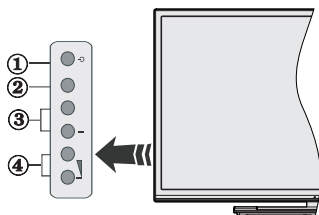
Package Contents



Note: You should check the accessories after purchasing. Make sure that each accessory is included.

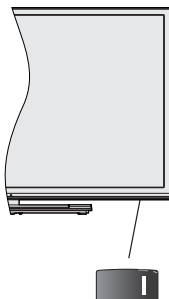
As the manufacturer's specification supports communication on cable lengths shall be smaller than 3m.


TV Control button & Operation



1. Standby / On button
2. TV/AV button
3. Programme Up/Down buttons
4. Volume Up/Down buttons

Note: Press Volume Up/Down buttons at the same to view main menu and use Programme Up/Down buttons to navigate and Volume Up/Down buttons to change value.



 , switch is used for turning the TV on or off.

The position of the control buttons and power switch may differ depending on the model.

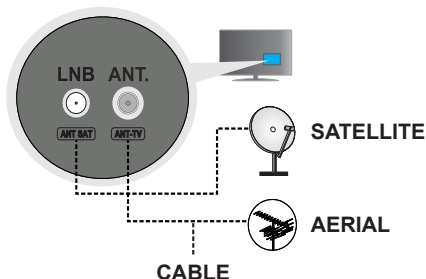
Connect Power

IMPORTANT: The TV set is designed to operate on 220-240V AC, 50 Hz socket. After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains. Plug the power cable to the mains socket outlet.

Antenna/Cable/Satellite Connection

Connect the aerial or cable TV plug to the AERIAL INPUT (ANT.) or satellite lead to the SATELLITE INPUT(LNB) located on the rear side of the TV. "Satellite is only available in 762/772 series".

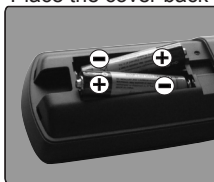
Rear side of the TV:



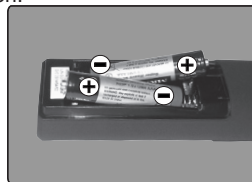
Note: Satellite support is depending on the model. (only available in LC-42LE772EN / LC-50LE772EN series)

Installing The Batteries Into The Remote

- Remove the back cover to reveal the battery compartment.
- Insert two size AAA batteries. Note the correct polarity(+ or -). Do not mix old and new batteries. Replace only with same or equivalent type.
- Place the cover back on.



Remote Control 1



Remote Control 2

Angle of the remote control unit

Use the remote control unit by pointing it towards the remote control sensor.

Objects between the remote control unit and sensor may prevent proper operation.

Cautions regarding the remote control unit


- Do not expose the remote control unit to shock. In addition, do not expose the remote control unit

to liquids, and do not place in an area with high humidity.



- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.

Switching On/Off

To Switch the TV On


Connect the power cord to the mains socket. Switch the “” button on the TV to position “I” so the TV will switch to standby mode. Then the standby LED lights up.

To switch on the TV from standby mode either:



- Press the “” button, **P+ / P-** or a numeric button on the remote control.
- Press the “” or **P/CH+/-** button on the TV.

The TV will then switch on.

To Switch the TV to Standby

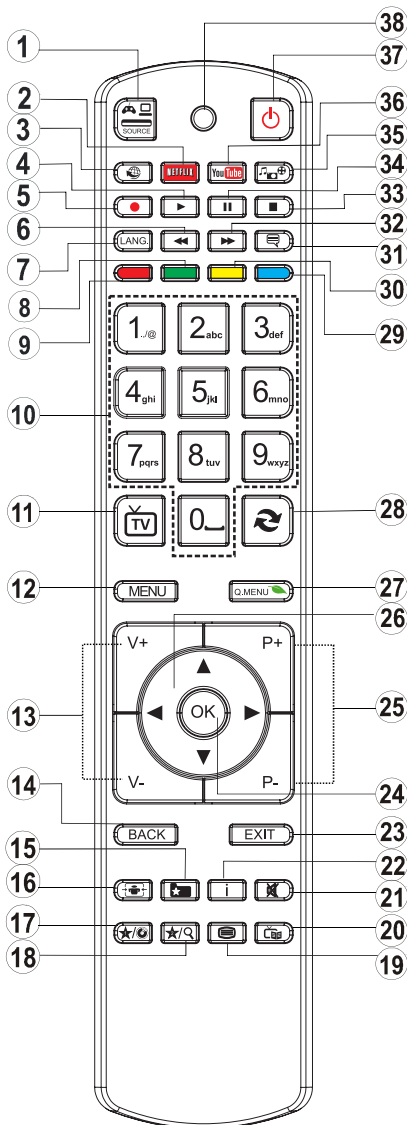
To switch the TV to low power standby press the “” button on the remote control or on the TV.

To Switch the TV Off

Switch the “” button on bottom of the TV to position 2 as illustrated -  to isolate the TV from the mains, the LED will go out.

Viewing remote control - 1

1. **Source:** Shows all available broadcast and content sources
2. **Netflix:** Launches the Netflix application. (This service is available only in certain countries)
3. **Internet:** Opens the portal page, where you can reach many web based applications
4. **Play:** Starts to play selected media
5. **Record:** Records programmes
6. **Rapid reverse:** Moves frames backwards in media such as movies
7. **Language:** Switches between sound modes (analogue TV), displays and changes audio/subtitle language (digital TV, where available)
8. **Green button**
9. **Red button**
10. **Numeric buttons:** Switches the channel, enters a number or a letter in the text box on the screen.
11. **TV:** Displays channel list / Switches among broadcast types / Switches to TV Source
12. **Menu:** Displays TV menu
13. **Volume +/-**
14. **Back/Return:** Returns to previous screen, opens index page (in TXT mode)
15. **Favourites:** Displays user specified favourite channels
16. **Screen:** Changes the aspect ratio of the screen
17. **My button 1 (*)**
18. **My button 2 (*)**
19. **Text:** Displays teletext (where available), press again to superimpose the teletext over a normal broadcast picture (mix)
20. **EPG (Electronic programme guide):** Displays the electronic programme guide
21. **Mute:** Completely turns off the volume of the TV
22. **Info:** Displays information about on-screen content, shows hidden information (reveal - in TXT mode)
23. **Exit:** Closes and exits from displayed menus or returns to previous screen
24. **OK:** Confirms user selections, holds the page (in TXT mode), views channel list (DTV mode)
25. **Programme +/-**
26. **Navigation buttons:** Helps navigate menus, content etc. and displays the subpages in TXT mode when pressed Right or Left
27. **Quick Menu:** Displays a list of menus for quick access
28. **Swap:** Quickly cycles between previous and current channels or sources
29. **Blue button**
30. **Yellow button**
31. **Subtitles:** Turns subtitles on and off (where available)
32. **Rapid advance:** Moves frames forward in media such as movies
33. **Stop:** Stops the media being played
34. **Pause:** Pauses the media being played, starts timeshift recording
35. **Media browser:** Opens the media browsing screen
36. **YouTube:** Launches the YouTube application.
37. **Standby:** Switches On / Off the TV
38. No function

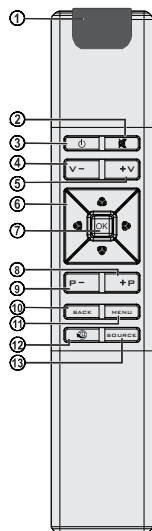


Note: The Remote Control range is approximately 7m / 23ft.
(*) MY BUTTON 1 & MY BUTTON 2:

These buttons may have default functions depending on the model. However you can set a special function to these buttons by pressing on them for five seconds when on a desired source or channel. A confirmation message will be displayed on the screen. Now the selected MY BUTTON is associated with the selected function.

Note that if you perform First Time Installation, MY BUTTON 1&2 will return to their default function.

Viewing remote control - 2 (Air Mouse)



1. Operation LED light
2. Mute
3. Standby
4. Volume Down
5. Volume Up
6. Navigation buttons
7. OK / Confirm
8. Programme Up
9. Programme Down
10. Back / Return
11. Menu on/off
12. Internet / Portal
13. Source selection

You can use this air mouse as a mouse while using internet browser and also as a regular remote to control your TV.

Air Mouse installation

To use air mouse, connect the USB receiver to the one of the USB inputs of your TV. Afterwards it will automatically pair with your TV.

Air mouse is ready for use. Open the web browser in your television and enjoy it.

Notes: If there is no operation in ten seconds, it will switch to sleep mode. To use again, just press any button.

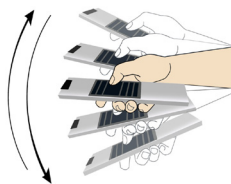
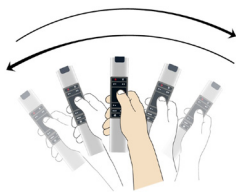
Note that all applications in the portal are not compatible with air mouse.

How to use Air Mouse

You can move the cursor on the screen by moving the air mouse in the air.

To move the cursor horizontally and vertically

Just move the remote like in the drawings below. The pointer on the screen will follow your movements.

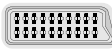






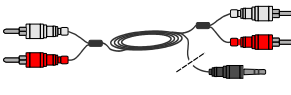








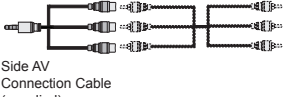


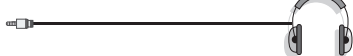

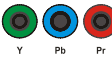

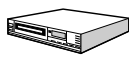



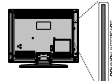










To scroll Up-Down

To Scroll-up, please place the pointer at the top of the screen and press the up-navigation button.

To Scroll-down, please place the pointer at the bottom of the screen and press the down-navigation button.

Viewing the Connections

Connector	Type	Cables	Device
	Scart Connection (back)		
	VGA Connection (back)		
	PC/YPbPr Audio Connection (back)		
	HDMI Connection (back&side)		
	SPDIF (Optical Out) Connection (back)		
SIDE AV 	Side AV (Audio/Video) Connection (side)	 Side AV Connection Cable (supplied)	
	Headphone Connection (side)		
	YPbPr Video Connection (back)		
	USB Connection (side)		
	CI Connection (side)		
 Subw out	Subwoofer Connection (back)		
	Ethernet (LAN) Connection (back)		

Note: When connecting a device via the YPbPr or Side AV input, you must use connection cables to enable connection. For Side AV input you should use the supplied cable. See the illustrations on the left side.

| To enable PC audio, you will need to use PC/YPBPR AUDIO CONNECTION WHITE & RED inputs. | If an external device is connected via the SCART socket, the TV will automatically switch to AV mode. | When receiving DTV channels (Mpeg4 H.264) or while in Media Browser mode, output will not be available via the scart socket.

| When using the wall mounting kit (available from third party in the market), we recommend that you plug all your cables into the back of the TV before mounting on the wall. | Insert or remove the CI module only when the TV is SWITCHED OFF. You should refer to the module instruction manual for details of the settings. | Each USB input of your TV supports devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV.

| By connecting an HDMI cable to your TV, you have to use only a shielded HDMI cable to guarantee a sufficient immunity against parasitic frequency radiation.



If you want to connect a device to the TV, make sure that both the TV and the device are turned off before making any connection. After the connection is done, you can turn on the units and use them.

Using a Conditional Access Module



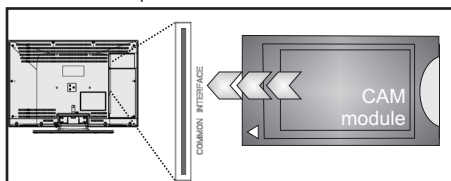
IMPORTANT: Insert or remove the CI module only when the TV is **SWITCHED OFF**.

In order to watch certain digital channels, a conditional access module (CAM) can be necessary. This module must be inserted in the CI slot of your TV.

1. Obtain the Conditional Access Module (CAM) and the viewing card by subscribing to a pay channel company, then insert those to the TV using the following procedure.
2. Insert the CAM and then the viewing card to the slot that is located in the terminal cover at the rear side of the TV.
3. The CAM should be correctly inserted, it is impossible to insert fully if reversed. The CAM or the TV terminal may be damaged if the CAM is forcefully inserted.
4. Connect the TV to the mains supply, switch on and then wait for few moments until the card is activated.
5. When no module is inserted, **"No Common Interface module detected"** message appears on the screen.

You can refer to the module instruction manual for details of the settings.

Note: It takes a few minutes to certify the licence key when you insert a CA card into the CI+ compatible CI module for the first time. This process may fail when there is no antenna input or you have never run "Auto installation". If the old CAM is used, authentication may fail. In such cases, contact the contracted service provider.



Standby Notifications

If the TV does not receive any input signal (e.g. from an aerial or HDMI source) for 5 minutes, the TV will go into standby. When you next switch-on, the following message will be displayed:

"TV switched to stand-by mode automatically because there was no signal for a long time."

Press **OK** to continue.

If the TV has been left on and not been operated for a while, the TV will go into standby. When you next switch-on, the following message will be displayed:

"TV switched to stand-by mode automatically because no operation was made for a long time."

Press **OK** to continue.

When the **Auto TV OFF** timeout is reached, the following message will be displayed on the screen:

"Shut Down?"

Select **Yes** to shut down the TV. Select **No** to cancel. The TV will switch off as well, if you do not make a selection on this screen.

First Time Installation

When turned on for the first time, the language selection screen is displayed. Select the desired language and press **OK**.

On the next screen, set your preferences using the navigation buttons and when finished, press **OK** to continue.

You can activate **Store Mode** option at this point. This option is intended only for store use. It is recommended to select **Home Mode** for home use. If **Store Mode** is selected, a confirmation screen will be displayed. Select **YES** to proceed. This option will be available in **Other Settings** menu and can be turned off/on later.

If **Home Mode** is selected, **Store Mode** will be available after the **First Time Installation**. Press **OK** button to continue.

Aerial Installation

If you select **Aerial** option from the search type selection screen, the television will search for digital terrestrial TV broadcasts. You can press the **MENU** button any time to cancel the search. After all the available stations are stored, the Channel List will be displayed on the screen.

While the search continues a message will appear, asking whether you want to sort channels according to the LCN (*). Select **Yes** and press **OK** to confirm.

(*) LCN is the Logical Channel Number system that organizes available broadcasts in accordance with a recognizable channel sequence (if available).

Press **MENU** button to quit channel list and watch TV.

Cable Installation

If you select **Cable** option and press **OK** button on the remote control a confirmation screen will be displayed. Select **YES** and press **OK** to proceed. To cancel operation, select **NO** and press **OK**. You can select frequency ranges from this screen. Enter the frequency range manually by using the numeric buttons. When finished, press **OK** button to start automatic search.

Note: Searching duration will change depending on the selected search step.

Satellite Installation (depends on the model)

If you select **Satellite** option from the search type selection screen, you can set a satellite and watch satellite channels. When you select Satellite installation, **Antenna Type** menu will be displayed. You can select **Antenna type** as **Direct**, **Unicable** or **DiSEqC switch**.

Direct: If you have a single receiver and a direct satellite dish, select this antenna type. After selecting **Direct**, another menu screen will be displayed. Select an available satellite and press **OK** to scan for services.

Unicable: If you have multiple receivers and a unicable system, select this antenna type. Press **OK** to continue. Configure settings by following instructions on the screen. Press **OK** to scan for services.

DiSEqC switch: If you have multiple satellite dishes and a **DiSEqC switch**, select this antenna type. After selecting **DiSEqC switch**, another menu screen will be displayed. You can set four **DiSEqC** options (if available). Press **GREEN** button to scan all satellites or press **YELLOW** button to scan only the highlighted satellite. To save and exit press **OK** button.

Note: Do not turn off the TV while initializing first time installation.

(*) Some options may not be available depending on the country selection.

Media Playback via USB Input

You can connect a 2.5" and 3.5" inch (hdd with external power supply) external hard disk drives or USB memory stick to your TV by using the USB inputs of the TV.

IMPORTANT! Back up your files before making any connections to the TV. The Manufacturer will not be responsible for any file damage or data loss.


Certain types of USB devices (e.g. MP3 Players) or USB hard disk drives/memory sticks may not be compatible with this TV. The TV supports FAT32 and NTFS disk formatting but recording will not be available with NTFS formatted disks.

While formatting a USB hard disk that has 1TB (Tera Byte) or more file capacity, you can experience problems with the formatting process.

Quickly plugging and unplugging USB devices, is a very hazardous operation. This may cause physical damage to the USB player and the USB device itself. Do not pull out the USB module while playing a file.

Media Browser Menu

You can play photo, music, and video files stored on a USB storage device or on a media server. Connect a USB disk to one of the USB inputs located on the side of the TV. Or connect your media server to the same network with the TV.

Press the "media browser button -  on the remote or press the **MENU** button and select **Media Browser** tab by using Left/Right buttons and press **OK**. Main media browser screen will be displayed.




Select the media type to be listed and press **OK**.

If there is more than one media source available, a list of devices and servers will be displayed. Highlight the device or server from the list and press **OK**.

If you press the **MENU** button while in the Media Browser mode you can access **Picture**, **Sound** and **Settings** menu options. Pressing the **MENU** button again will exit from this screen.

You can set your Media Browser preferences by using the settings menu.

Changing Image Size: Picture Formats

Programmes can be watched in different picture formats, depending on the transmission received. You can change the aspect ratio (image size) of the TV for viewing the picture in different zoom modes. Press “” button repeatedly to change the image size. You can shift the screen up or down by using “” or “” buttons while in **14:9 Zoom**, **Cinema** or **Subtitle**.

Using the Channel List

The TV sorts all stored stations in the channel list. You can edit this channel list, set favourites or set active stations to be listed by using the **Channel List** menu options. Press **MENU** button to view main menu. Select **Channel List** item by using **Left** or **Right** button. Press **OK** to view menu contents. Select **Edit Channel List** to manage all stored channels. Use **Up** or **Down** and **OK** buttons to select **Edit Channel List**. Press **Up** or **Down** button to select the channel that will be processed. Press **Left** or **Right** button to select a function. Use **P+/P-** buttons to move page up or down. Press **MENU** button to exit.

Quick Menu

Quick Settings menu allows you to access some options quickly. Press **Q.MENU** button on the remote control to view quick menu. This menu content may differ depending on the model of your TV.

CEC and CEC RC Passthrough

This function allows to control the CEC-enabled devices, that are connected through HDMI ports by using the remote control of the TV.

The CEC option in the Other Settings menu under Settings menu should be set as Enabled at first. Press the Source button and select the HDMI input of the connected CEC device from the Source List menu. When new CEC source device is connected, it will be listed in source menu with its own name instead of the connected HDMI ports name(DVD Player, Recorder 1 etc.).

The TV remote is automatically able to perform the main functions after the connected HDMI source has been selected.

To terminate this operation and control the TV via the remote again, press and hold the “0-Zero” button on the remote control for 3 seconds. Or press Q.Menu button on the remote, highlight the CEC RC Passthrough and set as Off by pressing Left or Right button. This feature can also be enabled or disabled under the Settings/Other Settings menu.

The TV supports also ARC(Audio Return Channel) feature. This feature is an audio link meant to replace

other cables between the TV and the audio system (A/V receiver or speaker system).

When ARC is active, TV does not mute its other audio outputs automatically. So you need to decrease TV volume to zero manually, if you want to hear audio from connected audio device only (same as other optical or co-axial digital audio outputs). If you want to change connected device's volume level, you should select that device from the source list. In that case volume control keys are directed to connected audio device.

FollowMe TV

With your mobile device you can stream the current broadcast from your smart TV using the FollowMe TV feature. Install the appropriate Smart Center application to your mobile device. Start the application.

For further information on using this feature refer to the instructions of the application you use.

Note: This application is not compatible with all mobile device.

FollowMe TV to DMR

This feature allows video streaming from your TV to another TV or mobile devices, using proper applications (e.g. UPnP - Universal Plug and Play - applications like BubbleUPnP). Activate FollowMe TV to DMR and timeshifting starts. Press the red button and device selection menu will be displayed. Choose your device and press OK.

Note: *FollowMeTV and FollowMe TV to DMR features work correlated with the PVR feature and requires a connected USB storage device with FAT32 format and enough space in it. HD channels are not supported and both of the devices must be connected to the same network.*

Menu Features and Functions

Picture Menu Contents	
3D Settings	Press to view 3D settings.
Mode	You can change the picture mode to suit your preference or requirements. The Picture mode can be set to one of these options: Cinema , Game , Sports , Dynamic and Natural .
Contrast	Sets the lightness and darkness values of the screen.
Brightness	Sets the brightness value for the screen.
Sharpness	Sets the sharpness value for the objects displayed on the screen.
Colour	Sets the colour value, adjusting the colors.
Power Save Mode	To set the Power Save Mode as Eco, Picture Off and Disabled. (When the Mode is Dynamic, Power Save mode is automatically set as disabled.)
Backlight	This setting controls the backlight level. The backlight function will be inactive if the Power Save Mode is set to Eco. The backlight cannot be activated in VGA, Media Browser mode or while the picture mode is set to Game.
Noise Reduction	If the broadcast signal is weak and the picture is noisy, use the Noise Reduction setting to reduce the amount of noise.
Advanced Settings	
Dyanmic Contrast	You can change the Dynamic Contrast ratio to desired value.
Colour Temp	Sets the desired colour tone.
Picture Zoom	Sets the desired picture size from picture zoom menu. <i>Note: Auto option is only available in Scart mode with SCART PIN8 high voltage/low voltage switching.</i>
Movie Sense	Press Use "Left" / "Right" to set Movie Sense Low, Med, High or Off. While Movie Sense is active, it will optimize the TV's video settings for motional images to acquire a better quality and readability. When Movie Sense option is set to Low, Med or High, Movie Sense demo option will be available. If one of these options is selected and if you press OK button, then the demo mode starts. While demo mode is active, the screen will be divided into two sections, one displaying the movie sense activity, the other displaying the normal settings for TV screen.
HDMI True Black	While watching from a HDMI source, this feature will be visible in the Picture Settings menu. You can use this feature to enhance blackness in the picture.
Film Mode	Films are recorded at a different number of frames per second to normal television programmes. Turn this feature on when you are watching films to see the fast motion scenes clearly.
Skin Tone	Skin tone can be changed between -5 and 5.
Colour Shift	Adjust the desired colour tone.
RGB Gain	You can configure the colour temperature values using the RGB Gain feature.
Reset	Resets the picture settings to factory default settings.(Except Game Mode)
Autoposition (in PC mode)	Automatically optimizes the display. Press OK to optimize.
H Position (in PC mode)	This item shifts the image horizontally to the right hand side or left hand side of the screen.
V Position (in PC mode)	This item shifts the image vertically towards the top or bottom of the screen.
Dot Clock (in PC mode)	Dot Clock adjustments correct the interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts.
Phase (in PC mode)	Depending on the resolution and scan frequency that you input to the TV set, you may see a hazy or noisy picture on the screen. In such a case you can use this item to get a clear picture by trial and error method.
<i>While in VGA (PC) mode, some items in Picture menu will be unavailable. Instead, VGA mode settings will be added to the Picture Settings while in PC mode.</i>	

Menu Features and Functions

Sound Menu Contents

Volume	Adjusts the volume level.
Equalizer	Selects the equalizer mode. Custom settings can be made only when in User mode.
Balance	This setting is used for emphasizing left or right speaker balance.
Headphone	Sets headphone volume.
Sound Mode	You can select a sound mode (if the selected channel supports).
AVL (Automatic Volume Limiting)	This function sets the sound to obtain fixed output level between programmes.
Headphone/Lineout	When you connect an external amplifier to your TV using the headphone jack, you can select this option as Lineout. If you have connected headphones to the TV, set this option as Headphone.
Dynamic Bass	Enables or disables the Dynamic Bass.
Surround Sound	Surround sound mode can be changed as On or Off.
Digital Out	Sets digital out audio type.

Settings Menu Contents

Conditional Access	Controls conditional access modules when available.
Language	Configures language settings (may change depending on the country selected) Preferred and current settings will be available. Current settings can be changed only if the broadcaster supports.
Parental	<p>Enter correct password to change parental settings. You can easily adjust menu lock; maturity lock(depending on the country selected) and child lock in this menu. You can also set a new PIN number.</p> <p>When Child Lock option is set as "ON", TV can only be controlled by the remote control handset. In this case the control panel button will not work</p> <p>Note: Default PIN can be set to 0000 or 1234. If you have defined the PIN(is requested depending on the country selection) during the First Time Installation use the PIN that you have defined.</p>
Timers	Sets sleep timer to turn off the TV after a certain time. Sets timers for selected programmes.
Recording Configuration	Displays the recording configuration menu.
Date/Time	Sets date and time.
Sources	Enables or disables selected source options.
Satellite Settings	Displays satellite settings. (Satellite support depends on the model)
Network Settings	Displays network settings.
Netflix (optional)	<p>You can view your ESN(*) number and deactivate Netflix.</p> <p>(*) ESN number is an unique ID number for Netflix, created especially to identify your TV.</p>


Other Settings: Displays other setting options of the TV set

Menu Timeout	Changes timeout duration for menu screens.
Scan Encrypted Channels	When this setting is on, the search process will locate the encrypted channels as well.
HbbTV	You can enable or disable this feature by setting it as On or Off .
Blue Background	Activates or deactivates the blue background system when the signal is weak or absent.
Software Upgrade	To ensure that your TV always has the most up to date firmware.
Application Version	Displays current software version.

Menu Features and Functions

Subtitle Mode	This option is used to select which subtitle mode will be on the screen (DVB subtitle / TXT subtitle) if both is available. Default value is DVB subtitle. Available only in Norway.
Hard of Hearing	Enables any special feature sent from the broadcaster.
Audio Description	Audio description refers to an additional narration track for blind and visually impaired viewers of visual media, including television and movies. You can use this feature, only if the broadcaster supports that additional narration track. Note: Audio description sound feature cannot be available in recording or time shifting mode.
Auto TV Off	You can set the timeout value of the auto off feature. When the timeout value is reached and the TV has not been operated for a selected time, the TV will go into standby mode.
Standby Search (Optional)	If the Standby Search is set to On, when the TV is in standby mode, available broadcasts will be searched. If the TV locates any new or missing broadcasts, a menu screen will be displayed, asking you whether or not to execute these changes. The Channel list will be updated and changed after this process.
Store Mode	If you are displaying the TV in a store, you can activate this mode. Whilst Store Mode is enabled, some items in the TV menu may not be available.
Media Renderer (DMR)	Media Renderer feature allows you to share files stored on your smartphone or tablet pc. If you have a DLNA compatible smartphone or tablet pc and the appropriate software is installed, you can share/play photos on your TV. See instructions of your sharing software for more information. Media renderer mode will not be available with internet portal feature.
Power Up Mode	This setting configures the power up mode preference.
Biss Key	Biss is a satellite signal scrambling system that is used for some broadcasts. If you need to enter BISS key on a broadcast, you can use Biss Key setting located in the Other Settings menu. Highlight Biss Key and press OK to enter keys on the desired broadcast. (This menu item appears only when the TV has a satellite support)
Virtual Remote	Enable or disable the virtual remote feature.
CEC	With this setting you can enable and disable CEC functionality completely. Press Left or Right button to enable or disable the feature.
FollowMeTV	Enable or disable this feature.
FollowMeTV to DMR	Enable or disable this feature.
Install and Retune Menu Contents	
Automatic Channel Scan (Retune) (If available)	Displays automatic tuning options. Digital Aerial: Searches and stores aerial DVB stations. Digital Cable: Searches and stores cable DVB stations. Analogue: Searches and stores analogue stations. Digital Aerial & Analogue: Searches and stores aerial DVB and analogue stations. Digital Cable & Analogue: Searches and stores cable DVB and analogue stations. Satellite: Searches and stores satellite channels. (Satellite support depends on the model)
Manual Channel Scan	This feature can be used for direct broadcast entry.
Network Channel Scan	Searches for the linked channels in the broadcast system.
Analogue Fine Tune	You can use this setting for fine tuning analogue channels. This feature is not available if no analogue channels are stored.
First Time Installation	Deletes all stored channels and settings, resets TV to factory settings.
Clear Service List	(*) This setting is visible only when the Country option is set to Denmark, Sweden, Norway or Finland. Use this setting to clear channels stored.

Electronic Programme Guide (EPG)

Some, but not all channels send information about the current and next programmes. Press the  button to view the EPG menu.

Up/Down/Left/Right: Navigate EPG.


OK: Displays programme options.

INFO (i): Displays, in detail information on programme selected.

GREEN: Switches to List Schedule EPG.

YELLOW: Switches to Timeline Schedule EPG.

BLUE: displays filtering options.

 (RECORD): the TV will start to record the selected programme. You can press again to stop the recording.

IMPORTANT: To record a programme, you should first connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable recording feature. Otherwise, recording feature will not be available.

Note: Switching to a different broadcast or source is not available during the recording.

Programme Options

In EPG menu, press the **OK** button to enter the **Event Options** menu.

Select Channel

In EPG menu, using this option, you can switch to the selected channel.

Record / Delete Record Timer

After you have selected a programme in EPG menu, press the **OK** button and the **Options** screen will be displayed. Select **"Record"** option and press the **OK** button. After this operation, a recording becomes set to the selected programme.


To cancel an already set recording, highlight that programme and press the **OK** button and select the option **"Delete Rec. Timer"**. The recording will be cancelled.

Set Timer / Delete Timer

After you have selected a programme in EPG menu, press the **OK** button and the **Options** screen will be displayed. Select **"Set Timer on Event"** option and press **OK** button. You can set a timer for future programmes. To cancel an already set timer, highlight that programme and press the **OK** button. Then select **"Delete Timer"** option. The timer will be cancelled.

Note: It is not possible to record or set timer for two or more individual events at the same time interval.

Teletext

 **Teletext / Mix:** Activates video text mode when pressed once (if available in your broadcast). Press again to view analogue teletext page. Press again to place the teletext screen over the programme (mix). Pressing again will quit the teletext mode.

"BACK" Index: Selects the teletext index page.

"I" Reveal: Shows hidden information (e.g. solutions of games).

"OK" Hold: Holds a text page when convenient. Press again to resume.


"< "I" >" Subcode Pages: Selects subcode pages if available when the teletext is activated.

P+ / P- and numbers (0-9): Press to select a page.


Note: Most TV stations use code 100 for their index pages.

Your TV supports both **FASTEXT** and **TOP text** systems. When these systems are available, the pages are divided into groups or topics. When **FASTEXT** system is available, sections in a teletext page will become colour-coded and can be selected by pressing the coloured buttons. Press a coloured button that corresponds to with your needs. The coloured writings will appear, showing you which coloured buttons to use when **TOP text** transmission is present. Pressing **"v"** or **"^"** commands will request the next or previous page respectively.

Digital Teletext (for UK only)

- Press the  button. The digital teletext information appears. Operate it with the coloured buttons, cursor buttons and **OK** button.

The operation method may differ depending on the contents of the digital teletext. Follow the instructions displayed on digital teletext screen.

When the  button is pressed again, the TV returns to television broadcasting.

Recording a Programme

IMPORTANT: When using a new USB hard disk drive, it is recommended that you first format the disk using your TV's **"Format Disk"** option.

Your TV supports recording of digital broadcasts. To do this a USB storage device should be connected to the TV. The TV should be switched off while connecting the storage device. Then switch on the TV to enable recording feature.

The connected USB device should have at least 1 GB capacity and should have USB 2.0 compatibility. Otherwise an error message will be displayed.

If the writing speed of the connected USB disk is not sufficient, recording may fail and timeshifting feature may not be available.

The files of the recorded programmes will not be available to be played on a computer. You can play the recordings only via your TV.

Lip Sync delay may occur during the timeshifting.

The TV can record programmes up to ten hours.

Recorded programmes are split into 4GB partitions.

Recordings of HD programmes can occupy bigger size on the USB disk depending on the broadcast's resolution. For this reason it is recommended to use USB hard disk drives for recording HD programmes.

Do not plug out the USB/HDD during the recording. This may harm the connected USB/HDD.

Multipartition support is available. Maximum two different partitions are supported. If the disk have more than two partitions, crash may occur. First partition of the usb disk is used for PVR ready features. It also must be formatted as primary partition to be used for PVR ready features.

Some stream packets may not be recorded because of signal problems, so sometimes video may freezes during playback.

Record, Play, Pause, Display (for PlayListDialog) keys could not be used when teletext is ON. If a recording starts from timer when teletext is ON, teletext is automatically turned off. Also teletext usage is disabled when there is ongoing recording or playback.

Note: Recorded programmes are saved into the connected USB disk. If desired, you can store/copy recordings on a computer; however, these files will not be available to be played on a computer. You can play the recordings only via your TV.

Caution:

- Do not unplug the AC cord during USB-recording timer setting or USB-recording.
- When the AC cord is unplugged:
- The USB-recording timer setting is cancelled.

Timeshift Recording

Press **II** (PAUSE) button while watching a broadcast for switching to timeshifting mode. In timeshifting mode, the programme is paused and simultaneously recorded to the connected USB disk. Press **▶** (PLAY) button again to watch the paused programme from the stopped moment. You will see the timeshift gap between the real and the timeshifted programme in the info bar.

Press the **■** (STOP) button to stop timeshift recording and return to the live broadcast.

Timeshift cannot be used while in radio mode.

You cannot use the timeshift fast reverse feature before advancing the playback with the fast forward option.

Instant Recording

Press **●** (RECORD) button to start recording an event instantly while watching a programme. You can press **●** (RECORD) button on the remote control again to record the next event on the EPG. In this case, OSD will display the programmed events for recording. Press **■** (STOP) button to cancel instant recording. Switching to a different broadcast or source; and viewing Media Browser are not available during the recording.

Watching Recorded Programmes

Press MENU button. Highlight **Media Browser** and press **OK**. Select **Recordings Library** item and press **OK**. **Recordings Library** screen will be displayed. Select a recorded item from the list (if previously recorded) and press **OK** to view **Play Options**.

Available playback options

Play from start: Plays the recording from the beginning.

Resume: Recommences the recordings.

Play from offset: Specifies a playing point.

Press **■** (STOP) button to stop a playback and return to **Recordings Library**.

Recording Configuration

Select **Recording Configuration** item in the **Settings** menu to configure recording settings.

Format Disk: You can use **Format Disk** feature for formatting the connected USB disk.

IMPORTANT: Note that ALL the data stored on the USB disk will be lost and then the disk format will be converted to FAT32 if you activate this feature. If your USB disk malfunctions, you can try formatting the USB disk. In most cases formatting the USB disk will restore normal operation; however, ALL the data stored on the USB disk will be lost in such a case.

Connectivity Functions

Connecting TV to a Home Network

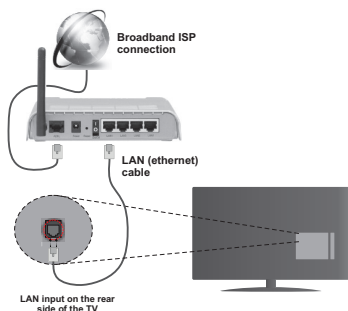
Connectivity feature allows the TV to connect to the home network wired or wirelessly. You can use this networking system to connect to the Internet Portal or to access photo, video and audio files that are stored on a media server connected to the network and play/display them on the TV.

Wired connection

Connect the TV to the modem/router via a LAN cable (not supplied). Select **Network Type** as **Wired Device** in **Network Settings** menu and press **OK** to connect.

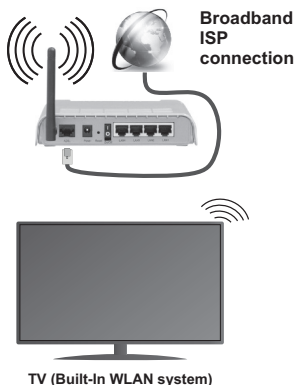
Press **Yellow** button on the remote to enter the advanced network settings menu. You can view or

change the settings such as IP Address using this menu.



Wireless connection

To connect the TV to the home network wirelessly just select **Network Type** as **Wireless Device** in **Network Settings** menu and press **OK** button. The TV will search for available networks. Select the desired network and press **OK**. The TV has a built-in WLAN system and has no need for additional devices to connect to a wireless network.



About Using Connectivity Feature

PC/HDD/Media Player or any other devices that are DLNA 1.5 compatible should be used with wired connection for higher playback quality.

Install Nero Media Home software to your PC to use it as a media server.

While using the wireless connection type, consider that the TV cannot connect to the networks with hidden SSID.

Configuring Network Settings

Your TV's network settings include wired and wireless connection options. If you are connecting the TV via ethernet input, select **Network Type** as **Wired Device**. Select **Wireless Device** option if you are going to connect the TV to your network wirelessly.

After selecting **Network Type** press **OK** to connect.

You can press **YELLOW** button to scan available networks for wireless connection. Afterwards, a list of networks will be displayed. Select your network from the list and press **OK**.

If the selected network is protected with a password, key in the correct code. You can also use virtual keyboard to enter the password.

Wait until the IP address is shown on the screen. This means that the connection is now established.

To disconnect from a network, you should highlight **Network Type** and press **OK**.

Information On Menu Items

Network Type: Network type can be selected as Wired or Wireless device, in accordance with the active connection to the TV set.

Configuration Status: This section displays the status of the connection.

IP Address: If an active connection is available, the IP address will be displayed on this section. If you want to configure IP address preferences, press **GREEN** button and switch to the advanced mode.

Connecting to your mobile device via WiFi

If your mobile device has WiFi feature, you can connect it to your TV via a router, in order to access the content in your device. For this, your mobile device must have an appropriate sharing software.

Connect your mobile device to the router/modem and then activate the sharing software on your mobile device. Then, select files that you want to share with your TV.

If the connection is established correctly, you will be able to access the shared files from your mobile device via the Media Browser of your TV.

Enter the Media Browser menu and the playback device selection OSD will be displayed. Select your mobile device and press the **OK** button to continue.

If available, you can download a virtual remote controller application from the server of your mobile device application provider. You can control the TV via your wireless handheld device using this application. To do this enable the **Virtual Remote** feature from the **Settings/Other Settings** menu by pressing **Left** or **Right** button. Connect the TV and the mobile device to the same network and start the application.

Note: This feature may not be supported on all mobile devices.

Using MIRACAST

When you connect a device such as a Miracast compatible smartphone or tablet to this TV, you can enjoy video and audio from the device on the TV's large screen and speakers.

1. Switch the TV source to "Screen Mirroring".

2. Enable the Miracast function on the Miracast supported device and connect to the TV.

(The TV changes according to the behavior of the device).

Note: This feature can be used only if the mobile device supports Miracast. Scanning and connecting processes differ according to the programme you use. Android based mobile devices should have the software version V4.1.2 and above.

Using DLNA Network Service

The DLNA standard allows you to view and play photos, music and videos stored in a DLNA compliant media server connected to your home network.

Install Nero Media Home software (for PC's or laptops) or appropriate sharing software (for other devices)

Nero MediaHome software download link (for PC only):
<http://www.nero.com/mediahome-tv>

The DLNA function cannot be used if the server programme is not installed onto your PC. Prepare your PC with the Nero Media Home programme. Install the appropriate application onto your mobile device.

Enable Media Renderer feature

Press **MENU** button. Select **Settings** and press **OK**. Highlight **Media Renderer** and set as **Enabled**.

Connect to a Wired or Wireless Network

See the previous chapters for detailed information.

Play Shared Files via Media Browser

Select **Media Browser** from the main menu and press **OK**. The Media browser will then be displayed.

DLNA support is only available in **Folder** mode. To enable folder mode, select to the **Settings** tab in the main media browser menu and press **OK**. Highlight **View Style** and set as to **Folder**. Press the **BACK** button to go to upper menu. Select the desired media type and press **OK**.

If sharing configurations are set properly, the device selection OSD will be displayed after selecting the desired media type. Select media server or network that you want to connect and press **OK**.

Subtitle files do not work if you watch videos from your network through DLNA.

You can connect only one television with DLNA to the same network. If a problem occurs with the DLNA network, please switch your television off at the wall socket and back on again. Trick mode and jump are not supported with the DLNA function.

There may be some PC's which may not be able to utilize the DLNA function due to administrator and security settings (such as business PC's).

Internet Portal

Portal feature adds your TV a feature that allows you to connect to a server on the Internet and view the content provided by this server over your Internet

connection. Portal feature allows you to view the music, video, clip or web content with defined shortcuts. Net TV provides variety of services for each country. Whether you can view the provided content without interruption depends on the connection speed provided by your internet service provider.

Press "**Net TV**" button on the remote to open internet portal page. You will see icons of the available applications and services on the portal screen. Use the navigation buttons on your remote to select the desired one. You may view the desired content by pressing **OK** after selecting. Press **BACK/RETURN** button to return back to the previous screen or **EXIT** to quit internet portal mode

Note: Possible application dependent problems may be caused by the content service provider.

NOTE:

• Because Net TV is an online system, it can be modified over time to better serve its purpose.

• Some Net TV services may be added, changed or discontinued after some time.

• Some open internet websites may not be tailored for a TV screen and may not be displayed correctly.

• You cannot download and save files nor install plug-ins.

DISCLAIMERS

• SHARP corporation bears no responsibility regarding the content and quality of the content provided by the content service provider.

Netflix

Netflix is a provider of on-demand internet streaming media. Press the **NETFLIX** button on the remote to launch the application.

HBBTV System

HbbTV (Hybrid Broadcast Broadband TV) is a standard that seamlessly combines TV services delivered via broadcast with services delivered via broadband and also enables access to Internet only services for consumers using connected TVs and set-top boxes. Services delivered through HbbTV include traditional broadcast TV channels, catch-up services, video-on-demand, EPG, interactive advertising, personalisation, voting, games, social networking and other multimedia applications.

HbbTV applications are available on channels where they are signalled by the broadcaster (currently various channels on Astra broadcast HbbTV applications). The broadcaster marks one application as “autostart” and this one is started by the platform automatically. The applications are generally launched with a small red button icon to notify the user that there is an HbbTV application on that channel (The shape and the location of the red button depends on the application). The red button is displayed for some and then may disappear. The user then should press the red button to open the application page. After the page is displayed the user can go back to the initial red button icon state by pressing the red button again. The user can toggle between the red button icon mode and full UI mode of the application via pressing red button. It should be noted that the red button switching capability is provided by the application and some application may behave differently.

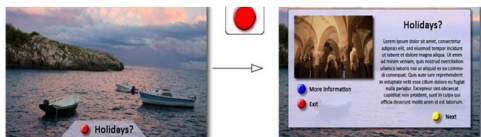


Figure x: Service with red button application (taken from HbbTV specification)

If you switch to another channel while an HbbTV application is active (either in red button icon mode or full UI mode), the following scenarios can occur.

- The application can continue running.
- The application can be terminated.
- The application can be terminated and another autostart red button application can be launched.

HbbTV allows the applications to be retrieved both from broadband or broadcast. The broadcaster may enable both ways or one of them. If the platform does not have an operational broadband connection, the platform can still launch applications transmitted on broadcast.

The autostart red button applications generally provide links to other applications. An example of this is shown

below. The user then can switch to other applications by using the links provided. The applications should provide a way to terminate themselves, usually button 0 is used for this.



Figure a: Start bar application



Figure b: EPG application, broadcast video is shown on the left bottom, can be terminated by pressing 0.

HbbTV applications use keys on the remote control to interact with the user. When an HbbTV applications is launched, the control of some keys are owned by the application. For example, numeric channel selection may not work on a teletext application where the numbers indicate teletext pages.

HbbTV requires AV streaming capability for the platform. There are numerous applications providing VOD (video on demand) and catch-up TV services. The user can use play, pause, stop, forward, and rewind keys on the remote control to interact with the AV content

Note: You can enable or disable this feature from the Other Settings menu in Settings menu. This feature is not available for UK models.

Connectivity Troubleshooting

Wireless Network Not Available

Ensure that the firewalls of your network allows the TV wireless connection. If the wireless network does not function properly, try using the wired network in your home. Refer to the **Wired Connection** section for more information on the process.

If the Net TV does not function, check the modem (router) first. If the router does not have a problem, check the internet connection of your modem.

Try searching for wireless networks again, using the **Network Settings** menu screen.

- The transmission speed differs depending on the distance and number of obstructions between the transmission products, the configuration of these products, the radio wave conditions, the line traffic, and the products that you use. The transmission may also be cut off or get disconnected depending on the radio wave conditions DECT phones, or any other WiFi 11b appliances. The standard values of the transmission speed are the theoretical maximum values for the wireless standards. They are not the actual speeds of data transmission.
- Wireless LAN adaptor supports 802.11 a,b,g & n type modems. It is highly recommended that you should use IEEE 802.11n communication protocol in order to avoid any possible problems while watching videos.
- You must change your modem's SSID when there are any other modems around with the same SSID. You can encounter connection problems otherwise.

Use wired connection instead if you experience problems with wireless connection.

Connection is Slow

See the instruction book of your wireless modem to get information on the internal service area, connection speed, signal quality and other settings. You need to have a high speed connection for your modem.

Distruption during playback or slow reactions

You could try the following in such a case:

Keep at least three meters distance from microwave ovens, mobile telephones, bluetooth devices or any other Wi-Fi compatible devices. Try changing the active channel on the WLAN router.

Using the 3D Mode

This product supports the viewing of 3D content from devices such as a High Definition Satellite Receiver or Blu-ray Player via HDMI, PC, YPBPR, USB inputs or via an available broadcast. You need to wear the supplied 3D Glasses to watch contents in 3D.

Precautions

For your safety ; Read these safety precautions carefully before using the 3D function.

- The 3D glasses are not recommended for people aged less than 6.
- You may experience discomfort, headaches or dizziness while watching 3D images. If you experience such symptoms, you should remove 3D glasses and stop watching 3D mode.
- Do not watch in 3D mode for long periods of time. Allow yourself occasional rests. During viewing, if you experience any discomforts such as eye-strain, headache or nausea; take off the 3D glasses and stop watching in 3D mode. Consult a doctor if the discomforts persist.
- It is recommended that an adult should check on children, including teenagers because they may be more sensitive to the effects of watching 3D. If they experience similar discomforts mentioned above, have them stop watching in 3D immediately.
- Do not use the 3D glasses for other purposes (such as general eyeglasses, sunglasses or protective goggles).
- Do not move around while watching in 3D and wearing the glasses as your vision is modified and you may run into objects which may result in injuries.
- Use only the supplied 3D glasses.
- If you experience screen flickering when watching 3D images in poor light conditions, you should turn the lamp off or dim the light.
- While wearing headphones do not adjust the volume to excessive levels as this may result in temporary or permanent hearing loss.

CAUTION - 3D Images

- Read these safety instructions carefully to prevent damage and ensure your personal safety.
- Consult an optometrist if you experience any difficulties while watching in 3D with your 3D glasses.

The following people should not use the 3D Mode:

- Pregnant women, seniors, people with heart conditions, as well as people who can get easily nauseous.
- When watching in 3D be aware of your surroundings. Do not watch in an environment with breakable objects nearby.

- Do not apply spray cleaners directly onto the surface of the 3D Glasses. This may result in discoloration and cracks and may cause the screen display to peel off.
- Make sure the cleaning cloth is soft and does not contain any foreign material or dust. Using a dirty cloth will damage your 3D glasses.
- Do not drop or bend the 3D glasses.
- If the receiving range is out of the specified range, the screen may not be viewable as 3D video.

Health Warning! - 3D Images


- When watching 3D images, you should leave a distance of at least twice the screen width between you and the screen, and you should keep the screen at eye level.
- Please prevent children under the age of 5 from watching 3D. It may affect their vision development.

Photosensitive Seizure Warning

- If you or a member of your family has a history of epilepsy or seizure, please consult with your doctor before watching 3D TV. It is possible that some viewers may experience a seizure or epilepsy when exposed to certain conditions, including flashing lights or images in TV or video games.
- Sometimes certain symptoms can occur in unspecified conditions even if you do not have any previous history. In such a case, if you experience any of the following symptoms, immediately stop watching the 3D TV and consult a doctor: altered vision, visual or facial instability, such as eye or muscle twitching, dizziness or light-headedness, visual transition or unconscious action, convulsion, loss of conscience, confusion or disorientation, loss of directional sense, cramps, or nausea.
- You can reduce the risk of photosensitization seizure by taking the following actions:
- While watching the 3D TV, do take frequent breaks. If you have vision that is different in each eye, you should watch the TV after taking vision correction measures.
- Some viewers may feel disoriented after watching 3D. Therefore, after you watch 3D, take a moment to regain awareness of your surrounding before moving.
- You must look straight ahead and the TV must be at eye level while wearing the 3D glasses. The picture may not be visible or may look dark if you do not stay within the viewing angle.

Operating the 3D Mode

- The 3D glasses are not recommended for people aged less than 6.
- Do not use the 3D glasses for other purposes (such as general eyeglasses, sunglasses, or protective goggles).

- You can enjoy viewing 3D images on your TV by wearing the supplied 3D Glasses. Note that this TV's 3D feature works only with its specific 3D glasses.
- Press the **"SOURCE - **" button and select the connected input.
- You should select suitable 3D Mode before viewing.
- To view 3D contents or programmes in 3D mode you must wear the supplied 3D Glasses.

3D Settings

Press the **MENU** button on the remote and select the **Picture** icon and press **OK**. Select **3D Settings** and press **OK** to display settings menu.

You can use the **Q.MENU** button on the remote for quick access to **3D Mode** and **Virtual 3D** settings.

You can use these settings to enable and customize 3D feature of your TV.

3D Mode

You can customize the 3D mode settings to provide the best viewing experience. Select one of these modes to experience 3D image viewing.

Auto: Automatically switches to 3D mode if 3D information is detected from a digital broadcast or a HDMI source.

Side by Side: Displays 3D content which is originally in a form of side by side.

Top bottom: Displays 3D content which is originally in a form of top and bottom.

Game: When playing 1:1 games on your TV, each player can enjoy the game with a full screen using this feature. To do this, the game you want to play has to support Dual Play. And you need to put on the proper Dual Play glasses (available from third party in the market). If a problem occurs by using **Game mode**, turn off/on the connected game console first or try to set the TV's 3D Mode to **Side by Side** or **Top Bottom**.

Even if the game doesn't support dual play, in certain split-screen games it is possible to use dual play feature by setting the TV's 3D Mode to **Side by Side** or **Top Bottom** according to the split screen type that the game includes.

Off: 3D function mode is turned off.

2D Only

If content is 3D but you want to watch it in 2D, you can switch to 2D only mode. There are 2 options (LEFT and RIGHT) to select which side of the content you want to watch in 2D.

Virtual 3D

Conversion from 2D to 3D. You can adjust the field of depth to various settings or turn it off.

Left/Right Swap

You can use this setting to shift the phase of the 3D left/right broadcast.

3D Depth Sense (optional)

This setting enables the control of 3D depth.

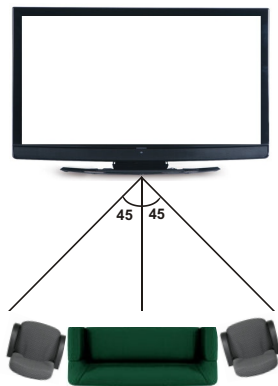
3D Viewing Information

Refer to the size / distance guidelines below to experience 3D in the best possible way.

Viewing Distance

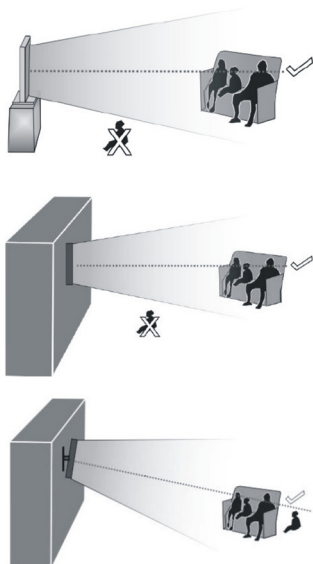
Size (inch)	42	50
Viewing distance (m)	1,5	1,8

Horizontal Viewing Angle



Vertical Viewing Angle

It is strongly recommended that the TV is placed at a height as same as the eye level of the viewer. In case that is not possible, tilt the TV accordingly in its stand or wall mount.



3D Viewing Information - continued

	HDMI	MBV	MBP
1080p@24 FP	Supported	Not Supported	Not Supported
720p@50 FP	Supported	Not Supported	Not Supported
720p@60 FP	Supported	Not Supported	Not Supported
1080p FC	SBS, TB	SBS, TB	SBS, TB
720p FC	SBS, TB	SBS, TB	SBS, TB
1080i FC	SBS	SBS	SBS
OTHER	Not Supported	Not Supported	(*)

	DTV	ATV	OTHER
1080p@24 FP	Not Supported	Not Supported	Not Supported
720p@50 FP	Not Supported	Not Supported	Not Supported
720p@60 FP	Not Supported	Not Supported	Not Supported
1080p FC	SBS, TB	Not Supported	SBS, TB
720p FC	SBS, TB	Not Supported	SBS, TB
1080i FC	SBS	Not Supported	SBS
OTHER	(*)	Not Supported	Not Supported

Please note that if you apply 720p FC TB input; the picture will be scaled smaller than the original size in the middle of the screen.

SBS: Side By Side

TB: Top Bottom

MBP: Media Browser Picture

MBV: Media Browser Video

FC: Frame Compatible

FP: Frame Pack

in MBP: Supported only when, the image's height is multiples of 2 and the image's width is multiples of 16 and if the image width is equal to the panel width or wider.

in DTV: Supported only when, the image's height is between 1700 and 1900 and the image's width is equal to 1280 or 720.

(*): Not supported if the image provides 1080i resolution.

Software Upgrade

Your TV is capable of finding and updating automatically via the Aerial/Cable/Satellite(depends on the model) signal or over the Internet.

Software upgrade search via user interface

Simply navigate on your main menu. Choose **Settings** and select **Other Settings** menu. In **Other Settings** menu navigate on to the **Software for Upgrade** item and press **OK** button to check for a new software upgrade.

Note : Internet connection is needed. If an internet connection is not available, try to upgrade via broadcast. If a new upgrade is found, it starts to download the upgrade. Press **OK** to continue with the reboot operation.

3 AM search and upgrade mode

While the TV is connected to an aerial signal. If Automatic scanning in the Upgrade Options menu is enabled, the TV wakes up at 03:00 and searches broadcast channels for new software upgrades. If new software is found and downloaded successfully, the next time the TV powers up , it will have the new software version.

Note: If the TV fails to come on after the upgrade unplug the TV for 2 minutes and plug in again.

Troubleshooting & Tips

Image persistence - ghosting

Please note that ghosting may occur while displaying a persistent image (still or paused image). LCD TVs' image persistence may disappear after a short time. Try turning off the TV for a while. To avoid this, do not leave the screen in still picture mode for extended periods.

No power

If your TV has no power, please check the power cord plug is connect to the mains power socket.

The TV cannot be operated

External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the TV after first turning off the power, or unplugging the AC cord and re-plugging it in after one or two minutes.

Poor picture

1. Have you selected the correct TV system?
2. Is your TV or house aerial located too close to a non-earthed audio equipment or neon lights, etc.?
3. Mountains or high buildings can cause double pictures or ghost images. Sometimes you can improve the picture quality by changing the direction of the aerial. Is the picture or teletext unrecognisable?
4. Check if you have entered the correct frequency.
5. Please retune the channels.

6. The picture quality may degrade when two devices are connected to the TV at the same time. In such a case, disconnect one of the devices.

No picture

1. No Picture means that your TV is not receiving a transmission. Have you selected the correct button on the remote control? Try once more. Also make sure the correct input source has been selected.
2. Is the aerial connected properly?
3. Are the plugs connected tightly to the aerial socket?
4. Is the aerial cable damaged?
5. Are suitable plugs used to connect the aerial?
6. If you are in doubt, consult your dealer.

Strange, light, dark colour or colour misalignment

- Adjust the picture settings. Press the **MENU** button and select **Picture**. Press **OK** to open the **Picture Settings** menu.
- Is the room too bright? The picture may look dark in a room that is too bright.

No sound

1. Has the TV been set to mute? To cancel mute, press the "M" button, or increase the volume level.
2. Sound is coming from only one speaker. Is the balance set to one extreme? See Sound Menu section.

Remote control - does not operate

Your TV no longer responds to the remote control. The batteries may be exhausted, if so you can still use the control buttons on the TV. (* Is only possible if they are not blocked by parental control.)

Power is suddenly turned off

- The TV's internal temperature has increased. Remove any objects blocking the vent or clean.
- Is a sleep timer set? Press the **MENU** button and select **Settings**. Select **Timers** in the sub-menu and press **OK**. Press Left or Right button to set the **Sleep Timer** as **Off**.
- Is **Auto TV OFF** function is activated? Press the **MENU** button and select **Settings**. Than select **Other Settings** and press **OK**. In the sub-menu highlight **Auto TV OFF** and press Left or Right button to set as **Off**.

Input sources - can not be selected

1. If you cannot select an input source, it is possible that no device is connected.
2. Check the AV cables and connections if you have tried to connect a device.

Recording Unavailable

To record a programme, you should first connect a USB disk to your TV while the TV is switched

off. You should then switch on the TV to enable recording feature. Otherwise, recording feature will not be available. If you cannot perform recording, try switching off the TV and then re-inserting the USB device while the TV is switched off.

USB Is too Slow

If "USB is too slow" message is displayed on the screen while starting a recording, try restarting the recording. If you still get the same error, it is possible that your USB disk does not meet the speed requirements. Try connecting another USB disk.

Internet Connection Not Available / DLNA Mode Not Operating

If the MAC address (a unique identifier number) of your PC or modem has been permanently registered, it is possible that your TV might not connect to the internet. In such a case, the MAC address is authenticated each time when you connect to the internet. This is a precaution against unauthorized access. Since your TV has its own MAC address, your internet service provider cannot validate the MAC address of your TV. For this reason, your TV cannot connect to the internet. Contact your internet service provider and request information on how to connect a different device, such as your TV, to the internet.

It is also possible that the connection may not be available due to a firewall problem. If you think this causes your problem, contact your internet service provider. A firewall might be the reason of a connectivity and discovery problem while using the TV in DLNA mode or while browsing via DLNA.

Invalid Domain

Check if the ethernet cable is connected properly.

Check if the Network settings are correct.

Ensure that you have already logged on to your PC with an authorized username/password and also ensure that your domain is active, prior to sharing any files in your DLNA server program on your PC. If the domain is invalid, this might cause problems while browsing files in DLNA mode.

The TV sometimes makes a cracking sound.

This is not a malfunction. This happens when the cabinet slightly expands or contracts according to the changes in the ambient temperature. This does not affect the TV's performance.

Miracast image/audio cannot be output to the TV.

Check if the pairing is made properly.

PC Typical Display Modes

The following table is an illustration of some of the typical video display modes. Your TV may not support all resolutions.

Index	Resolution	Frequency
1	640x350	85Hz
2	640x400	70Hz
3	640x400	85Hz
4	640x480	60Hz
5	640x480	66Hz
6	640x480	72Hz
7	640x480	75Hz
8	640x480	85Hz
9	800x600	56Hz
10	800x600	60Hz
11	800x600	70Hz
12	800x600	72Hz
13	800x600	75Hz
14	800x600	85Hz
15	832x624	75Hz
16	1024x768	60Hz
17	1024x768	66Hz
18	1024x768	70Hz
19	1024x768	72Hz
20	1024x768	75Hz
21	1024x768	85Hz
22	1152x864	60Hz
23	1152x864	70Hz
24	1152x864	75Hz
25	1152x864	85Hz
26	1152x870	75Hz
27	1280x768	60Hz
28	1360x768	60Hz
29	1280x768	75Hz
30	1280x768	85Hz
31	1280x960	60Hz
32	1280x960	75Hz
33	1280x960	85Hz
34	1280x1024	60Hz
35	1280x1024	75Hz
36	1280x1024	85Hz
37	1400x1050	60Hz
38	1400x1050	75Hz
39	1400x1050	85Hz
40	1440x900	60Hz
41	1440x900	75Hz
42	1600x1200	60Hz
43	1680x1050	60Hz
44	1920x1080	60Hz
45	1920x1200	60Hz

AV and HDMI Signal Compatibility (Input Signal Types)

Source	Supported Signals		Available
EXT1 (1st scart:)	PAL		O
	NTSC 60		O
	RGB 50/60		O
	SECAM		O
EXT2 (2st scart:)	PAL		O
	NTSC 60		O
	SECAM		O
Side AV	PAL 50/60		O
	NTSC 60		O
	SECAM		
YPbPr	480I, 480P	60Hz	O
	576I, 576P	50Hz	O
	720P	50Hz,60Hz	O
	1080I	50Hz,60Hz	O
HDMI	480I	60Hz	O
	480P	60Hz	O
	576I, 576P	50Hz	O
	720P	50Hz,60Hz	O
	1080I	50Hz,60Hz	O
	1080P	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O

(X: Not Available, O: Available)

In some cases a signal on the LED TV may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc.). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

Supported File Formats for USB Media Browser

Media	Extension	Format	Notes
Video	.dat, .mpg, .mpeg	Mpeg1-2	1080P@30fps, 50Mbit/sec
	.ts, .trp, .tp, .m2ts	MPEG2, H.264, VC1, AVS, MVC	H.264:1080P×2@25fps, 1080P@50fps MVC:1080P@24fps Other: 1080P@30fps - 50Mbit/sec
	.vob	MPEG2	1080P@30fps 50Mbit/sec
	.mkv	MPEG1-2-4, H.264	H.264:1080P×2@25fps, 1080P@50fps, 1080P@30fps, 50Mbit/sec
	.mp4 .mov	MPEG4, XviD, H.264	H.264:1080P×2@25fps, 1080P@50fps, 1080P@30fps, 50Mbit/sec
	.avi	MPEG2-4, Xvid, H.264	H.264:1080P×2@25fps, 1080P@50fps, 1080P@30fps, 50Mbit/sec
	.fla, .flv	H.264, Sorenson H.263	H.264:1080P×2@25fps, 1080P@50fps, 1080P@30fps, 40Mbit/sec
	.3gp	MPEG4, H.264	1920x1080@30P 20Mbit/sec
	.asf, .wmv	VC1	1080P@30fps, 50Mbit/sec
Audio	.mp3	MPEG1/2 Layer 1/2/3 (MP3)	Layer1: 32Kbps ~ 448Kbps (Bit rate) / 16KHz ~ 48KHz (Sampling rate) Layer2: 8Kbps ~ 384Kbps (Bit rate) / 16KHz ~ 48KHz (Sampling rate) Layer3: 8Kbps ~ 320Kbps (Bit rate) / 16KHz ~ 48KHz (Sampling rate)
	.wav	LPCM	
	.WMA/ ASF	WMA, WMA Pro	WMA: 128bps ~ 320Kbps (Bit rate) / 8KHz ~ 48KHz (Sampling rate) WMA Pro: < 768kbps (Bit rate) / ~ 96KHz (Sampling rate)
	.m4a/ .aac	AAC, HEAAC	Free Format (Bit rate) / 8KHz ~ 48KHz (Sampling rate)
	.pcm	PCM	8Kbps ~ 320Kbps (Bit rate) / 16KHz ~ 48KHz (Sampling rate)
	(works only with video files)	AC3	32Kbps ~ 640Kbps (Bit rate) / 32KHz, 44.1KHz, 48KHz (Sampling rate)
		EAC3	32Kbps ~ 6 Mbps (Bit rate) / 32KHz, 44.1KHz, 48KHz (Sampling rate)
		LPCM	64Kbps ~ 1.5Mbps (Bit rate) / 8KHz ~ 48KHz (Sampling rate)
		IMA-ADPCM/ MS-ADPCM	384Kbps (Bit rate) / 8KHz ~ 48KHz (Sampling rate)
Picture	.jpeg .jpg	Baseline	Resolution(WxH): 15360x8640, 4147200 bytes
		Progressive	Resolution(WxH): 1024x768, 6291456 bytes
	.png	non-interlace	Resolution(WxH): 9600x6400, 3840000 bytes
		interlace	Resolution(WxH): 1200x800, 3840000 bytes
	.bmp		Resolution(WxH): 9600x6400, 3840000 bytes
Subtitle	.sub	-	Sub1, Sub2, Sub3
	.srt	-	

Supported File Formats for by MKV

	External	Embedded subtitle
MicroDVD	Yes	
MPEG-4 Timed Text		
MPSub		
Ogg Kate		
Ogg Writ		
SAMI	Yes	
SubRip	Yes	
(Advanced) SubStation Alpha	Yes	Yes
SubViewer	Yes (only support 1.0 and 2.0)	
Universal Subtitle Format		Yes
VobSub	Yes	Yes
XSUB		

Supported DVI Resolutions

When connecting devices to your TV's connectors by using DVI converter cable(DVI to HDMI cable - not supplied), you can refer to the following resolution information.

	56Hz	60Hz	66Hz	70Hz	72Hz	75Hz
640x400				<input checked="" type="checkbox"/>		
640x480		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
800x600	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
832x624						<input checked="" type="checkbox"/>
1024x768		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1152x864		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
1152x870						<input checked="" type="checkbox"/>
1280x768		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1360x768		<input checked="" type="checkbox"/>				
1280x960		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1280x1024		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1400x1050		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1440x900		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1600x1200		<input checked="" type="checkbox"/>				
1680x1050		<input checked="" type="checkbox"/>				
1920x1080		<input checked="" type="checkbox"/>				
1920x1200		<input checked="" type="checkbox"/>				

Specifications

TV BROADCASTING

PAL B/G I/I' D/K
SECAM L/L' D/K

DIGITAL RECEPTION

FULLY INTEGRATED DIGITAL TERRESTRIAL-
CABLE TV(DVB-T-C)

(DVB-T2 COMPLIANCE AND DVB-S/S2 SUPPORT
IS DEPENDING ON THE MODEL)

- **HD DVB-T/C/S2(MPEG4) :**
LC-42LE772EN / LC-50LE772EN
- **HD DVB-T2/CABLE(MPEG4) :**
LC-42LE771EN / LC-50LE771EN
- **HD DVB-T2/CABLE(MPEG4) :**
DVB-T MHEG-5 Engine (for UK only)
LC-42LE771K / LC-50LE771K

RECEIVING CHANNELS

VHF (BAND I/III)
UHF (BAND U)
HYPERBAND

NUMBER OF PRESET CHANNELS

1.000
10.000 (if satellite is supported)

CHANNEL INDICATOR

On Screen Display

RF AERIAL INPUT

75 Ohm (unbalanced)

OPERATING VOLTAGE

220-240V AC, 50 Hz.

AUDIO

German + Nicam Stereo

OPERATION TEMPERATURE AND OPERATION HUMIDITY

0°C up to 40°C, 85% humidity max

AUDIO OUTPUT POWER (W_{rms}) (10% THD) 2 x 8 W
PANEL 16:9

	42"	50"
POWER CONSUMPTION (W)	75 W (max)	120 W (max)
WEIGHT (Kg)	14.5 Kg	19.00 Kg

Wireless LAN Specifications

Frequency Range

USA: 2.400 ~ 2.483GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz, 5.725 ~ 5.85GHz

Europe: 2.400 ~ 2.483GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz

Japan: 2.400 ~ 2.497GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz

China: 2.400 ~ 2.483GHz, 5.725 ~ 5.85GHz

Standard

IEEE 802.11.a/b/g/n

Host Interface

USB 2.0

Security

WEP 64/128, WPA, WPA2, TKIP, AES, WAPI

Note:

A wireless LAN connection and performance cannot be guaranteed for all residential environments in the following cases, the wireless LAN signal may be poor or drop, or the connection speed may become slower.

- When used in buildings made with concrete, reinforced steel, or metal
- When placed near objects that obstruct the signal
- When used with other wireless devices that emit the same frequency
- When used in the vicinity of microwave ovens and other devices that emit a magnetic field, electrostatic charge, or electromagnetic interference

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"YouTube and the YouTube logo are trademarks of Google Inc."

The "HD TV 1080P" Logo is a trademark of DIGITALEUROPE.

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The DVB logo is the registered trademark of the Digital Video Broadcasting—DVB—project.

EC Declaration of Conformity

Hereby, SHARP Electronics (Europe) GmbH declares that the TV set is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at: <http://www.sharp.eu/documents-of-conformity>

Note:

Usage of this LCD TV is permitted in Europe.

*This LCD TV is designed for **indoor use only**.*



Disclaimers for services using the Internet

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Nero MediaHome Installation

To install Nero MediaHome, please proceed as follows:

Note: To use DLNA function, this software should be installed to your PC.

1. Enter the link below completely in the address-bar of your web browser.

<http://www.nero.com/mediahome-tv>

2. Click the **Download** button on the opening page. The installation file will be downloaded onto your PC.
3. After the download is completed, double click on the installation file to start the installation. The installation wizard will guide you through the installation process.
4. The prerequisites screen will be displayed first. The installation wizard checks the availability of required third-party software on your PC. If applications are missing they are listed and must be installed before continuing installation.
5. Click the **Install** button. The integrated serial will be displayed. Please do not change the displayed serial.
6. Click the **Next** button. The License Conditions (EULA) screen will be displayed. Please read the license agreement carefully and select the appropriate check box if you agree to the terms of the agreement. Installation is not possible without this agreement.
7. Click the **Next** button. On the next screen you can set your installation preferences.
8. Click the **Install** button. The installation begins and finishes automatically. A progress bar will indicate the state of the installation process.
9. Click the **Finish** button. The installation is completed. You will be directed to the web site of the nero software.
10. A shortcut is now placed on your desktop.

Congratulations! You successfully installed Nero MediaHome on your PC.

Run Nero MediaHome by double clicking on the shortcut icon.



Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

A. Information on Disposal for Users (private households)

1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one.

*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

B. Information on Disposal for Business Users

1. In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

2. In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.



The battery supplied with this product contains traces of Lead.

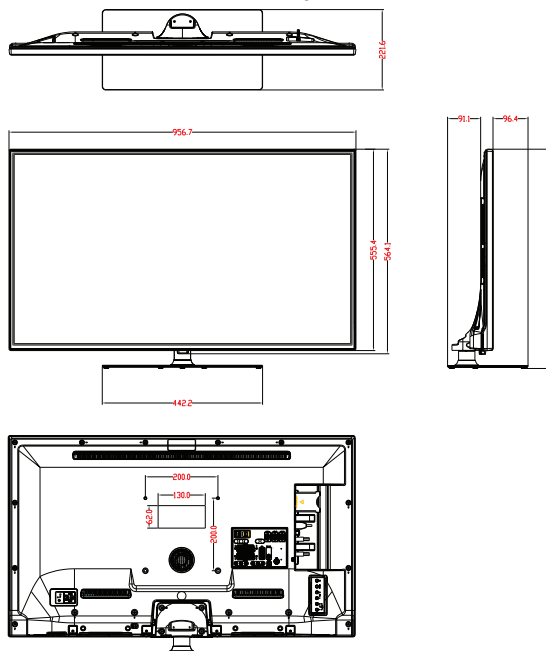
For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation. Please contact your local authority for details on the collection and recycling schemes.

For Switzerland: The used battery is to be returned to the selling point.

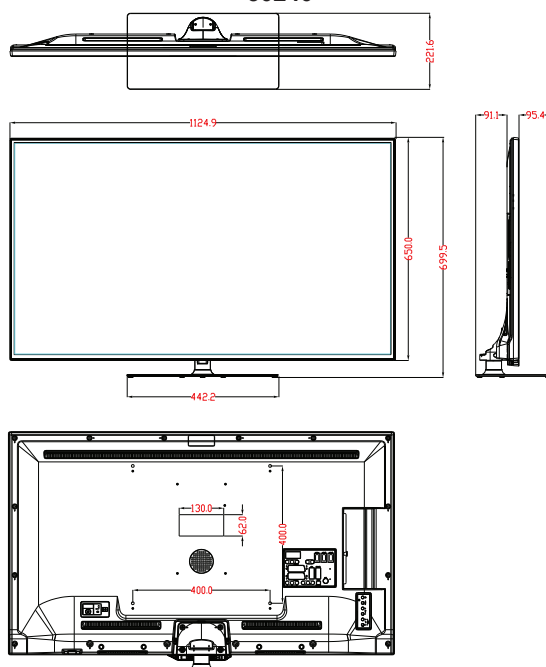
For other non-EU countries: Please contact your local authority for correct method of disposal of the used battery.

Dimensional Drawings

42240



50240



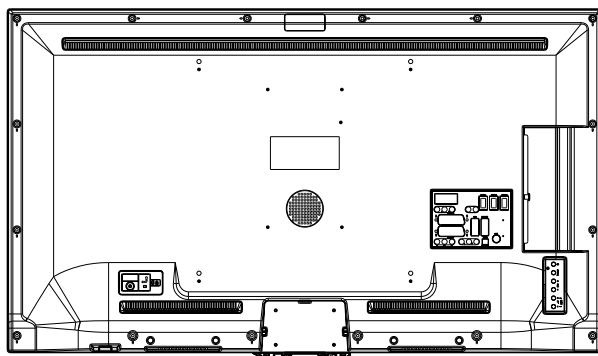
Note: The unit of the measurements is mm.

IMPORTANT

Please read the following information carefully before attaching the stand to your new Sharp Television.

Installing the Stand

- Before fitting the stand, ensure that the TV is unplugged from its power source.
- Place the Sharp Television (1) on a soft, stable and flat surface, facing down.
- Place the Stand (3) on the stand mounting pattern on the rear side of the TV.
- Ensure the Stand (3) is placed correctly and that you can see the screw holes on the back of the Sharp Television.
- Place the Stand Cover (2) on the Stand (3).
- Ensure the Stand Cover (3) is placed correctly and that you can see the screw holes on the back of the Sharp Television.
- DO NOT insert the screws before placing the plastic molding.
- Insert the screws provided and tighten them gently until the stand is properly fitted.

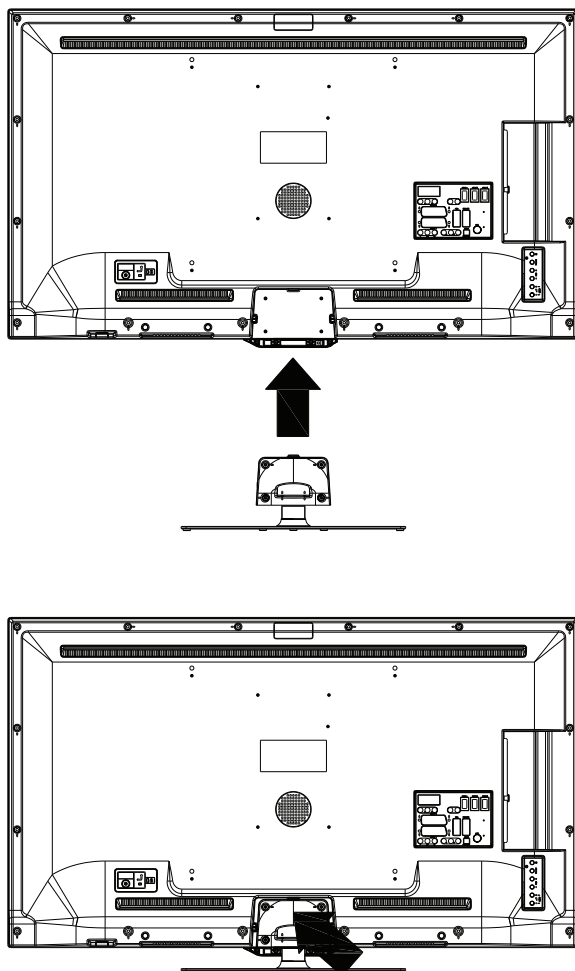


IMPORTANT

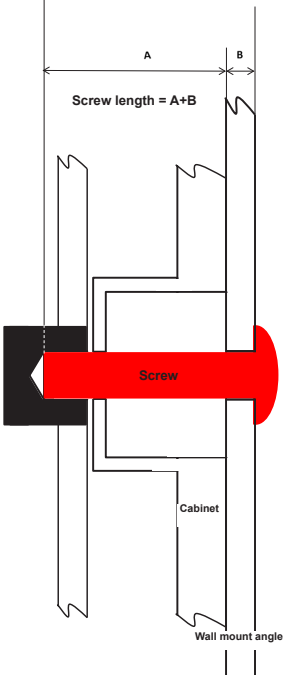
Please read the following information carefully before detaching the stand of your Sharp Television.

Uninstalling the Stand

- Before detaching the stand, ensure that the TV is unplugged from its power source.
- Place the Sharp Television on a soft, stable and flat surface, facing down.
- Unscrew gently the four screws that attach the foot assembly and remove the screws when they are completely unscrewed.
- Remove the stand and plastic moulding gently from the panel.



Screw Dimensions Wall Mounting



MODEL	VESA	TO THE PRODUCT
		MIN. / MAX. SCREW LENGTH (A LENGTH)
LC-42LE771EN LC-42LE772EN LC-42LE771K	200 x 200 (W X H)	M6 x 8 / M6 x 12
LC-50LE771EN LC-50LE772EN LC-50LE771K	400 x 400 (W X H)	M6 x 8 / M6 x 12

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